OIPE JC19 OCT 18 1999 PATENT & TRADEMARK OFFICE

GAU 2776 Informal Drawing 10/21/99 MDA

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: **Cooper et al.**

Serial No.: **09/306,189**

Filed: **May 6, 1999**

For: **METHOD AND APPARATUS FOR CONVERTING PROGRAMS AND SOURCE CODE FILES WRITTEN IN A PROGRAMMING LANGUAGE TO EQUIVALENT MARKUP LANGUAGE FILES**

§ Group Art Unit: **2776**
§
§ Examiner: **Unknown**
§
§ Attorney Docket No.: **AT9-98-920**
§

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By: Jennifer Wright

TRANSMITTAL DOCUMENT

Assistant Commissioner of Patents
Washington, D.C. 20231

Sir:

ENCLOSED HEREWITH:

- Letter to Official Draftsman;
- 19 pages of drawings; and
- Our return postcard.

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No fees are believed to be necessary. If, however, any fees are required, I authorize the Commissioner to charge these fees which may be required to Deposit Account No. 50-0392. No extension of time is believed to be necessary. If, however, any fees are required, I authorize the Commissioner to charge these fees which may be required to Deposit Account No. 50-0392.

Respectfully submitted,

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

ATTORNEY DOCKET NO. AT9-98-920

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For: **METHOD AND APPARATUS FOR CONVERTING PROGRAMS AND SOURCE CODE FILES WRITTEN IN A PROGRAMMING LANGUAGE TO EQUIVALENT MARKUP LANGUAGE FILES** §

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LETTER TO THE OFFICIAL DRAFTSMAN

Assistant Commissioner of Patents
Washington, D.C. 20231

Sir:

Submitted herewith are formal drawings (19 sheets) for the above-identified application.

Respectfully submitted,

Duke W. Yee
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ATTORNEY FOR APPLICANT

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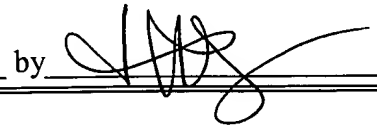
on 10/14/99 by 

APPROVED BY DRAFTSMAN | O.G. FIG. | CLASS | SUBCLASS

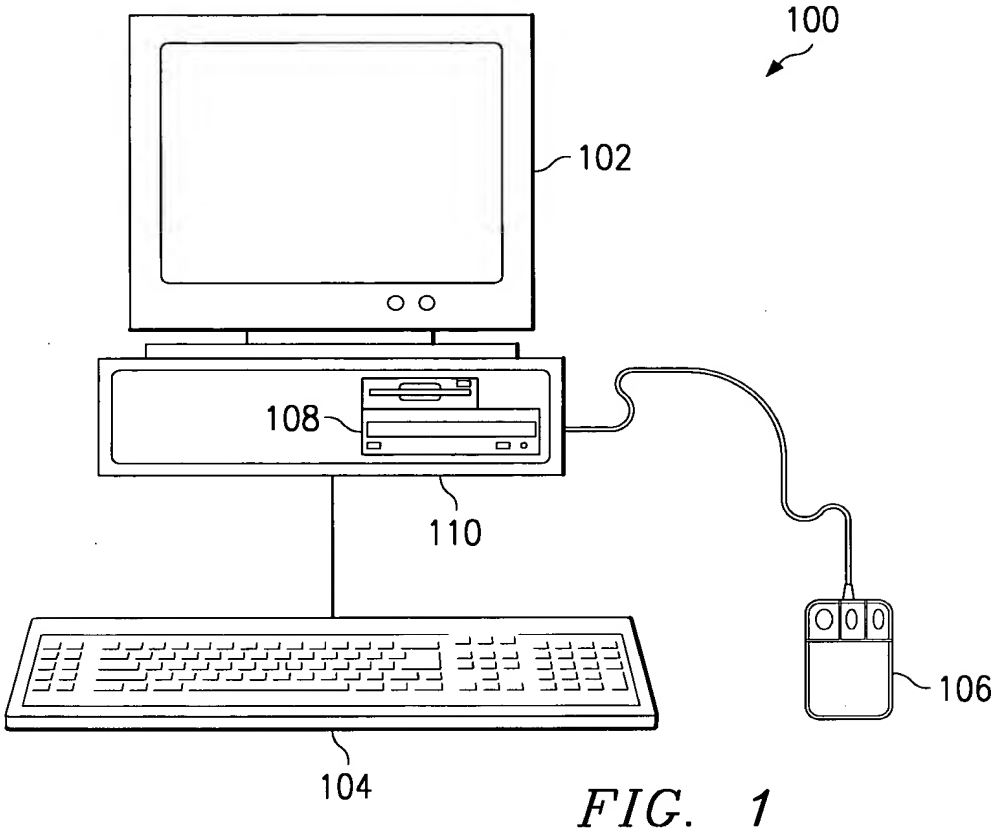


FIG. 1

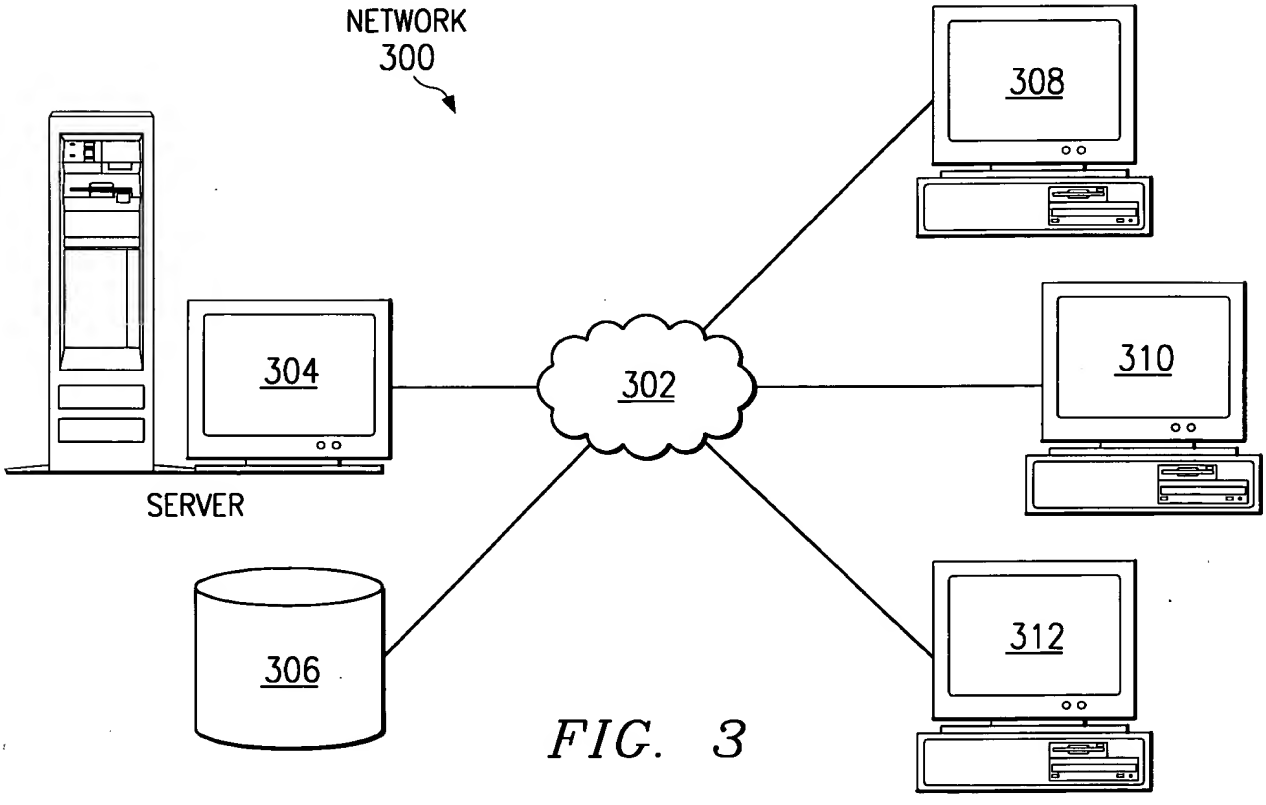


FIG. 3

APPROVED BY DRAFTSMAN | O.G. FIG. | CLASS | SUBCLASS

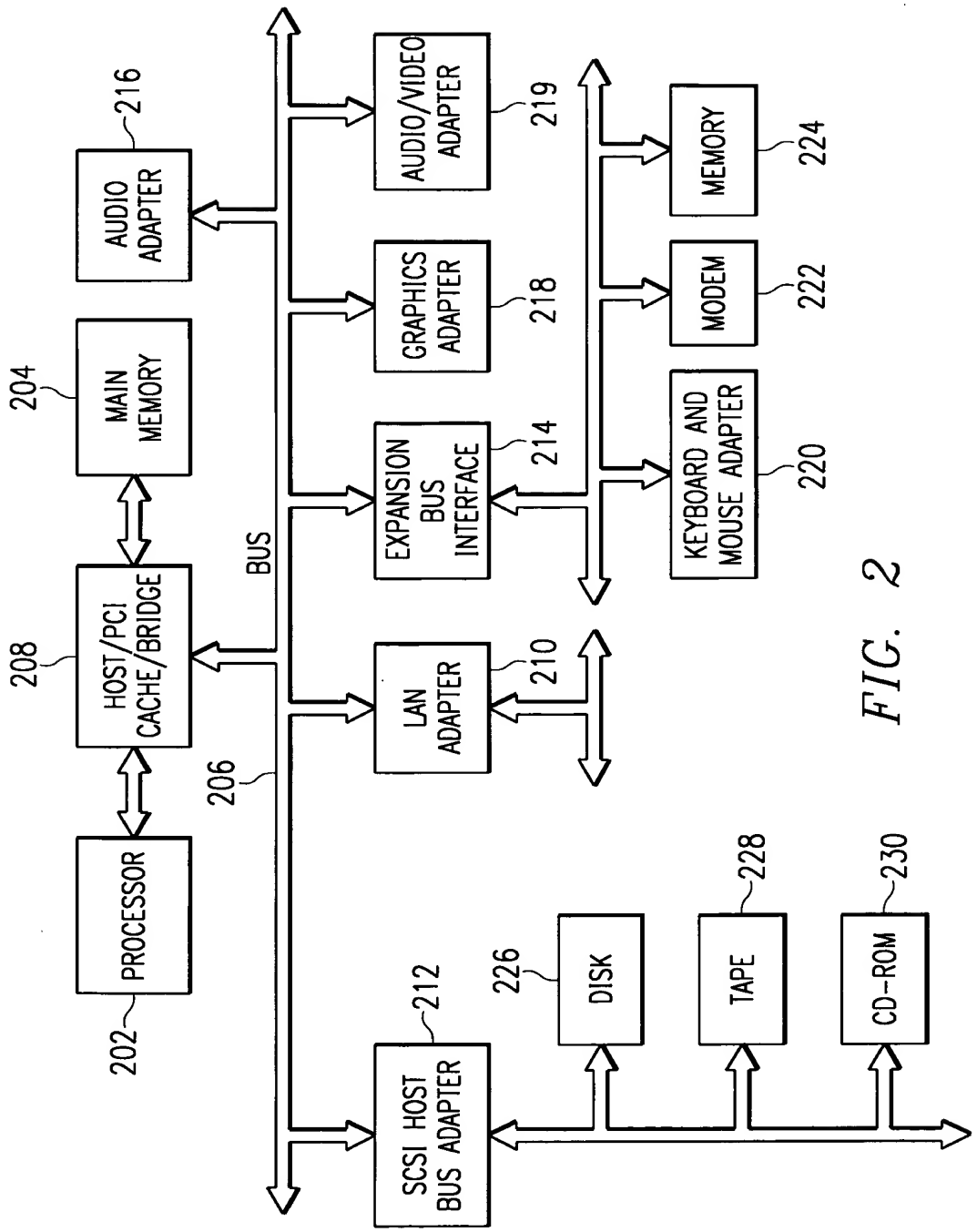


FIG. 2

APPROVED BY DRAFTSMAN
O.G. FIG.
CLASS SUBCLASS

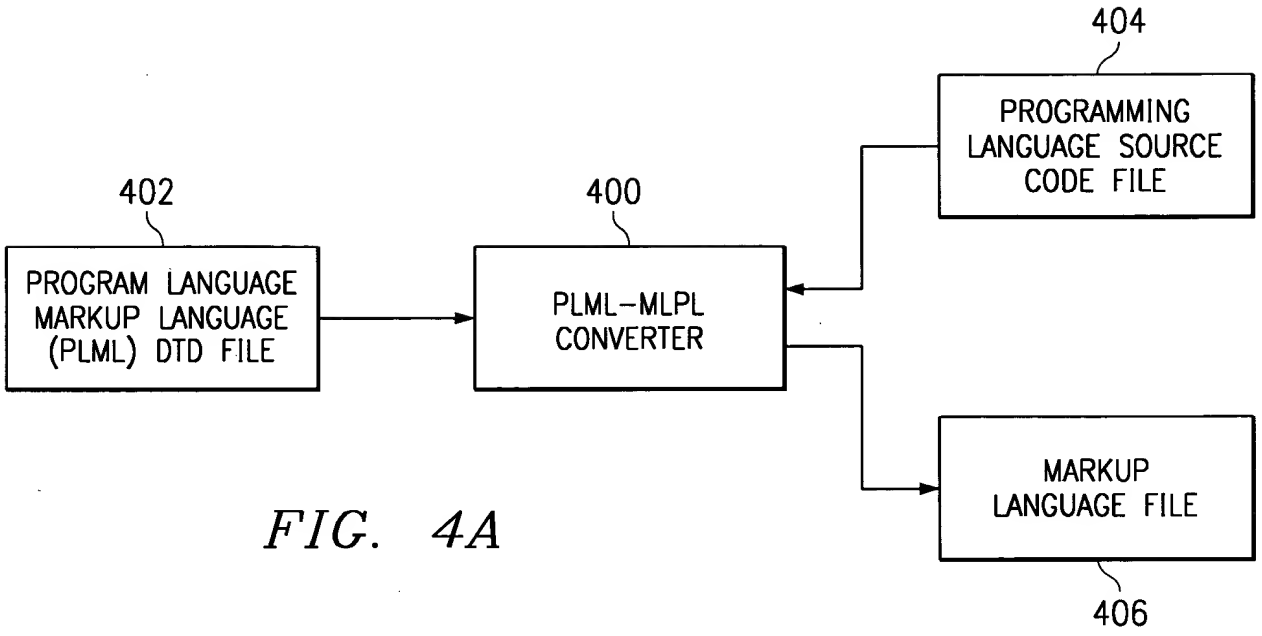


FIG. 4A

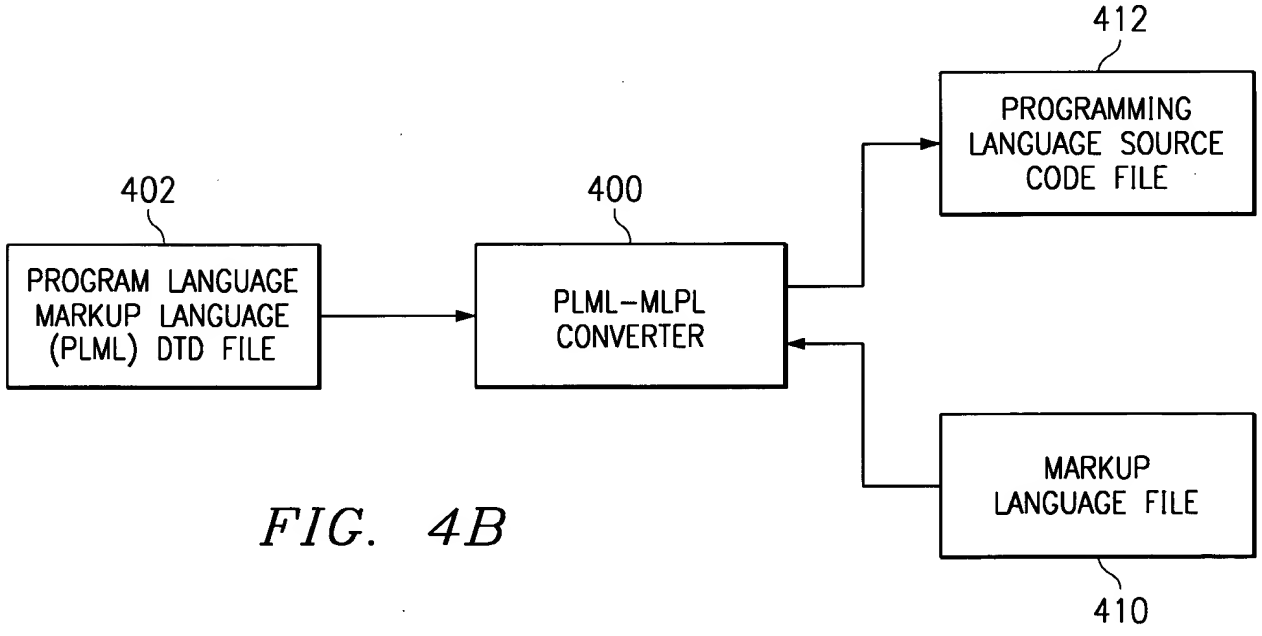


FIG. 4B

APPROVED BY DRAFTSMAN | O.G. FIG. | CLASS | SUBCLASS

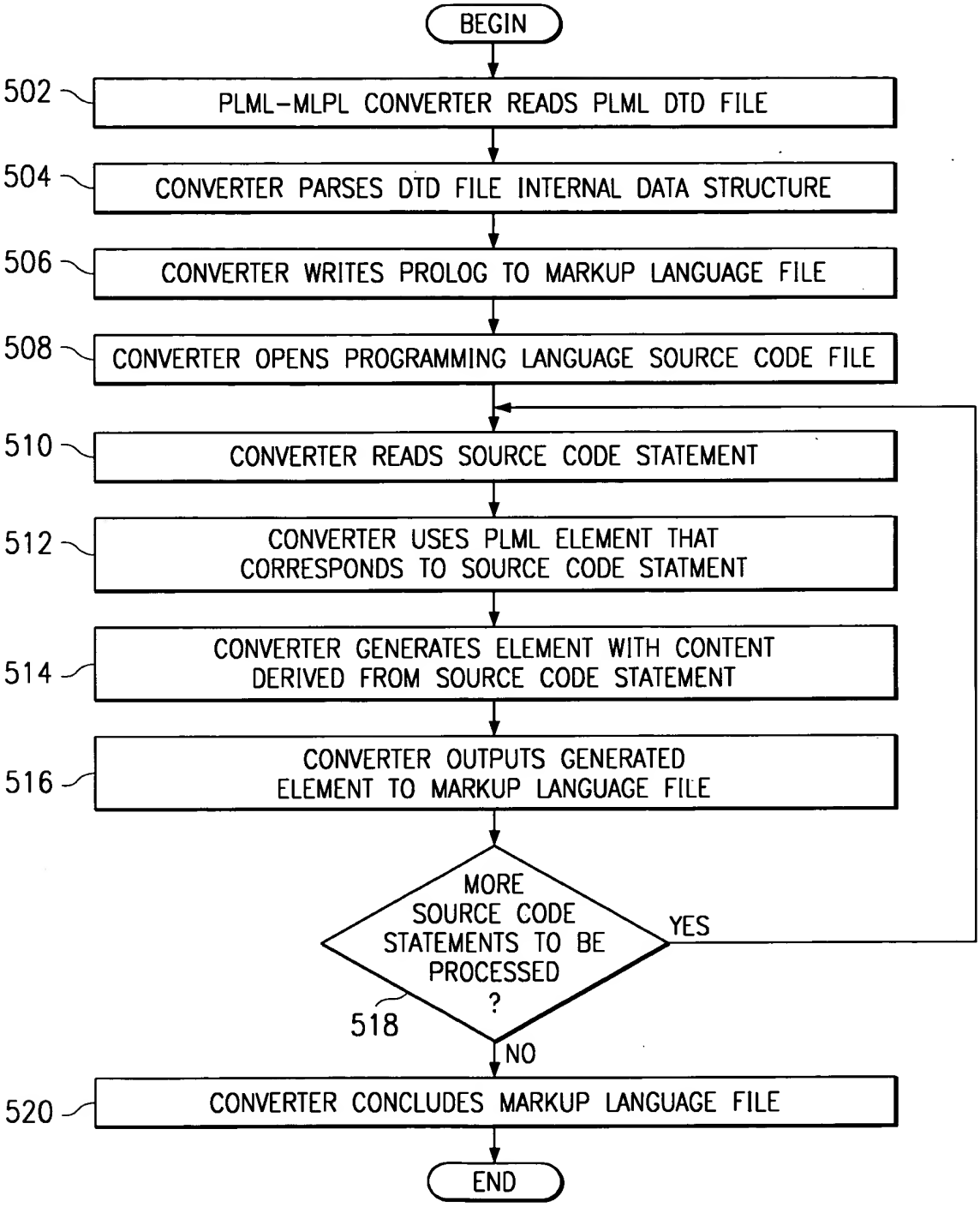


FIG. 5

APPROVED BY DRAFTSMAN | O.G. FIG. | CLASS | SUBCLASS

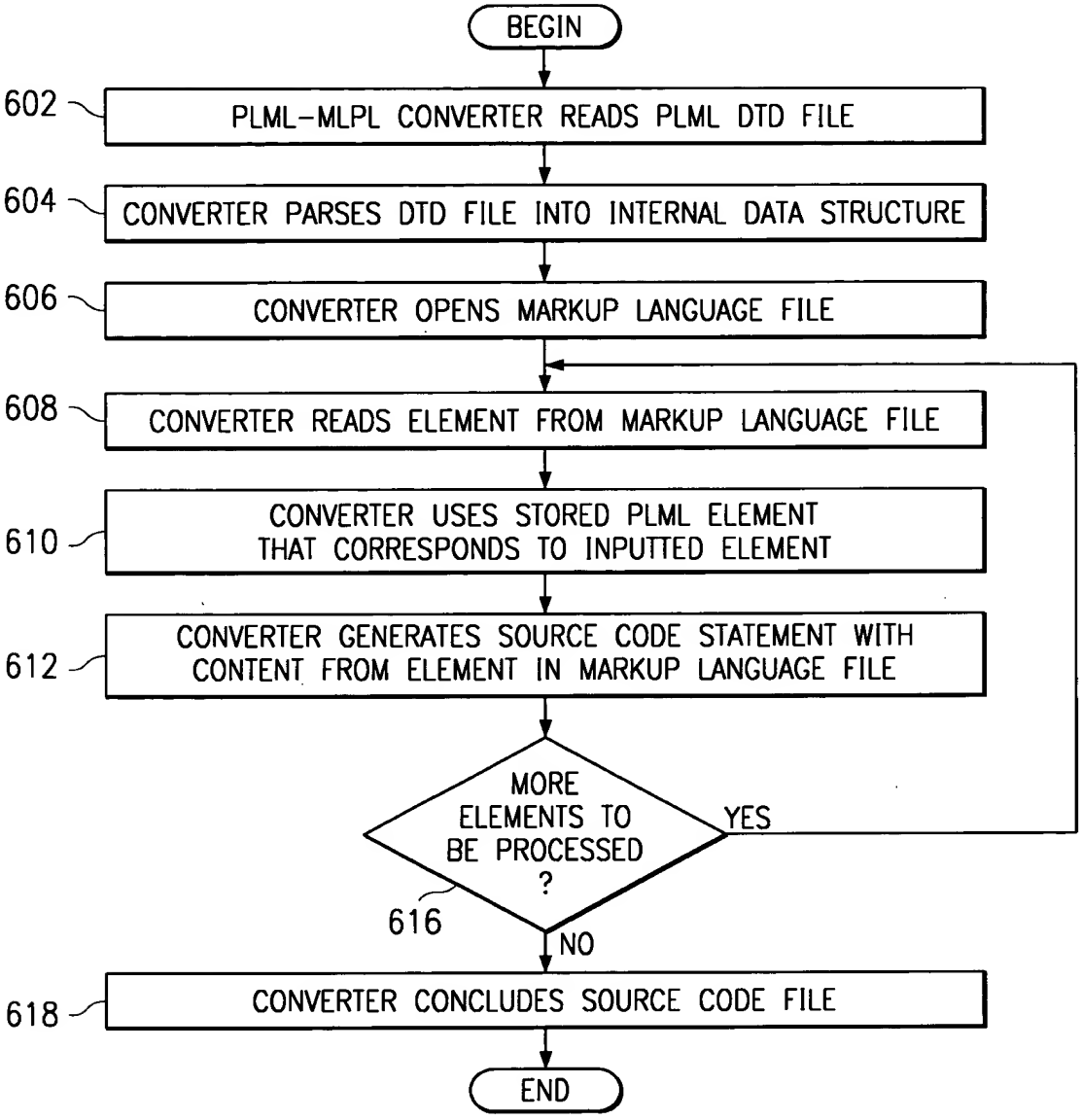


FIG. 6

APPROVED BY DRAFTSMAN | O.G. FIG. CLASS | SUBCLASS


```
702 <! ENTITY % base_content_model'(functionA | functionB)*'>

704 <! ELEMENT plml % base_content_model;>

706 <! ELEMENT functionA EMPTY>
    <! ATTLIST functionA arg1 CDATA #REQUIRED
                         arg2 CDATA #REQUIRED
    >

708 <! ELEMENT functionB EMPTY>
    <! ATTLIST functionB arg1 CDATA #REQUIRED
    >
    <! -- End of DTD for Programming Language Markup Language-->
```

FIG. 7

```
800  802  main programA (){
          integer temp;
                              initProg ();

     804                      temp=functionA(5,7);

     806                      temp=functionB(25);

          }
```

FIG. 8

```
900  902  <? plml version = "1.0"?>
          <! DOCTYPE plml SYSTEM "plml.dtd">

     904  <plml>

     906  <! -- main programA (){  --->
          <! -- integer temp;      --->
          <! -- initProg ();       --->

     908  <functionA arg1="5"arg2="7" />

     910  <functionB arg1="25" />

     912  <! -- }                  --->

     914  </ plml>
```

FIG. 9A

APPROVED BY DRAFTSMAN | O.G. FIG. CLASS | SUBCLASS


```
920 {
    922 { <? plml version = "1.0"?>
          <! DOCTYPE plml SYSTEM "plml.dtd">
    924 { <plml>
    926 { <functionA arg1="5"arg2="7" />
    928 { <functionB arg1="25" />
    930 { </plml>
}
```

FIG. 9B

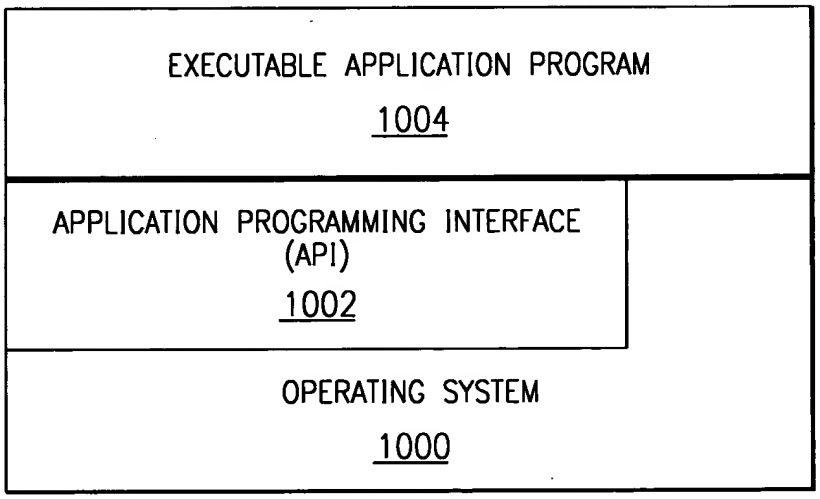


FIG. 10A

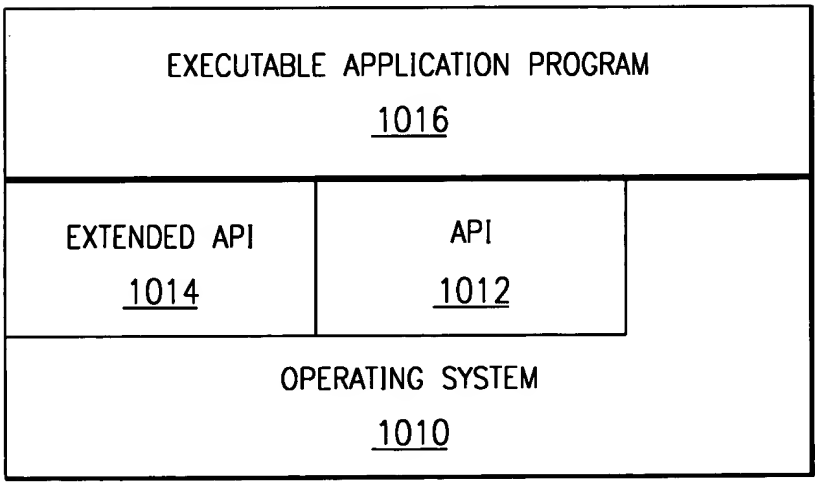


FIG. 10B

APPROVED BY DRAFTSMAN | O.G. FIG. CLASS | SUBCLASS

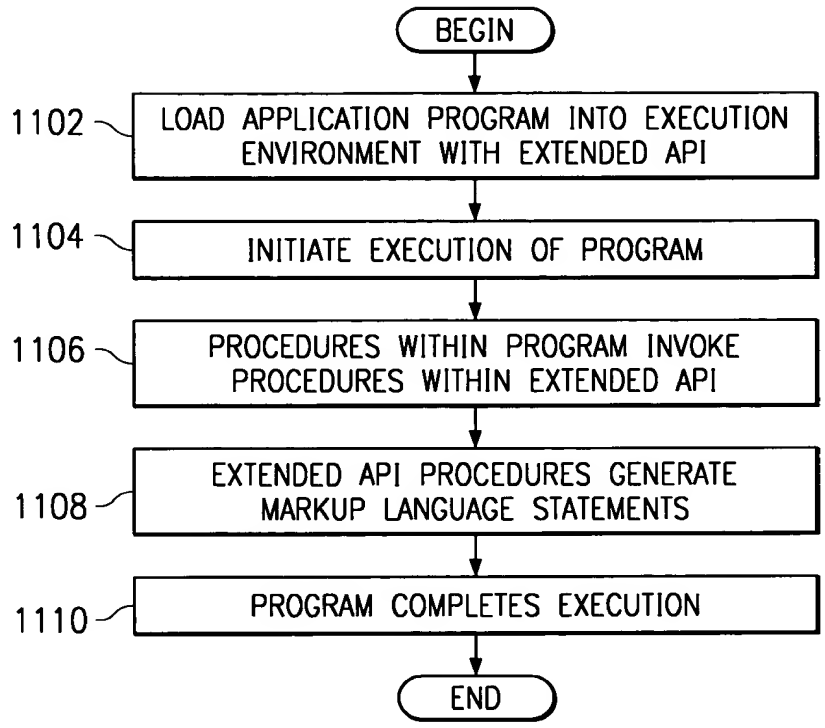


FIG. 11

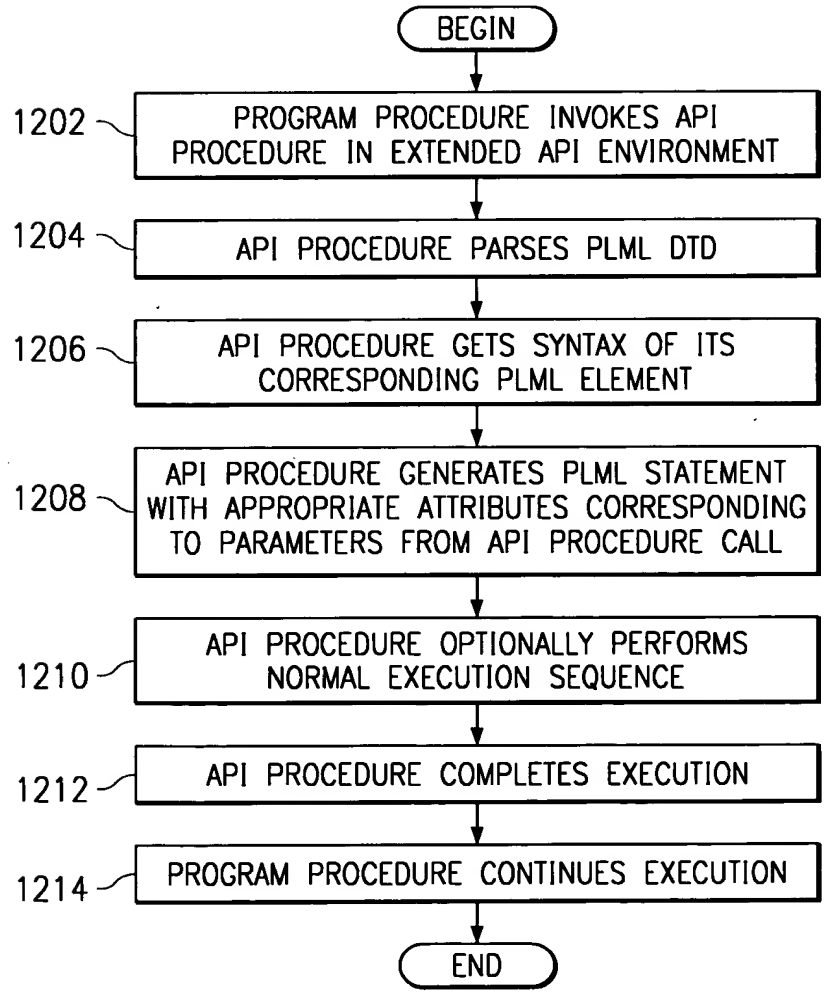


FIG. 12

APPROVED BY DRAFTSMAN | O.G. FIG. | CLASS | SUBCLASS

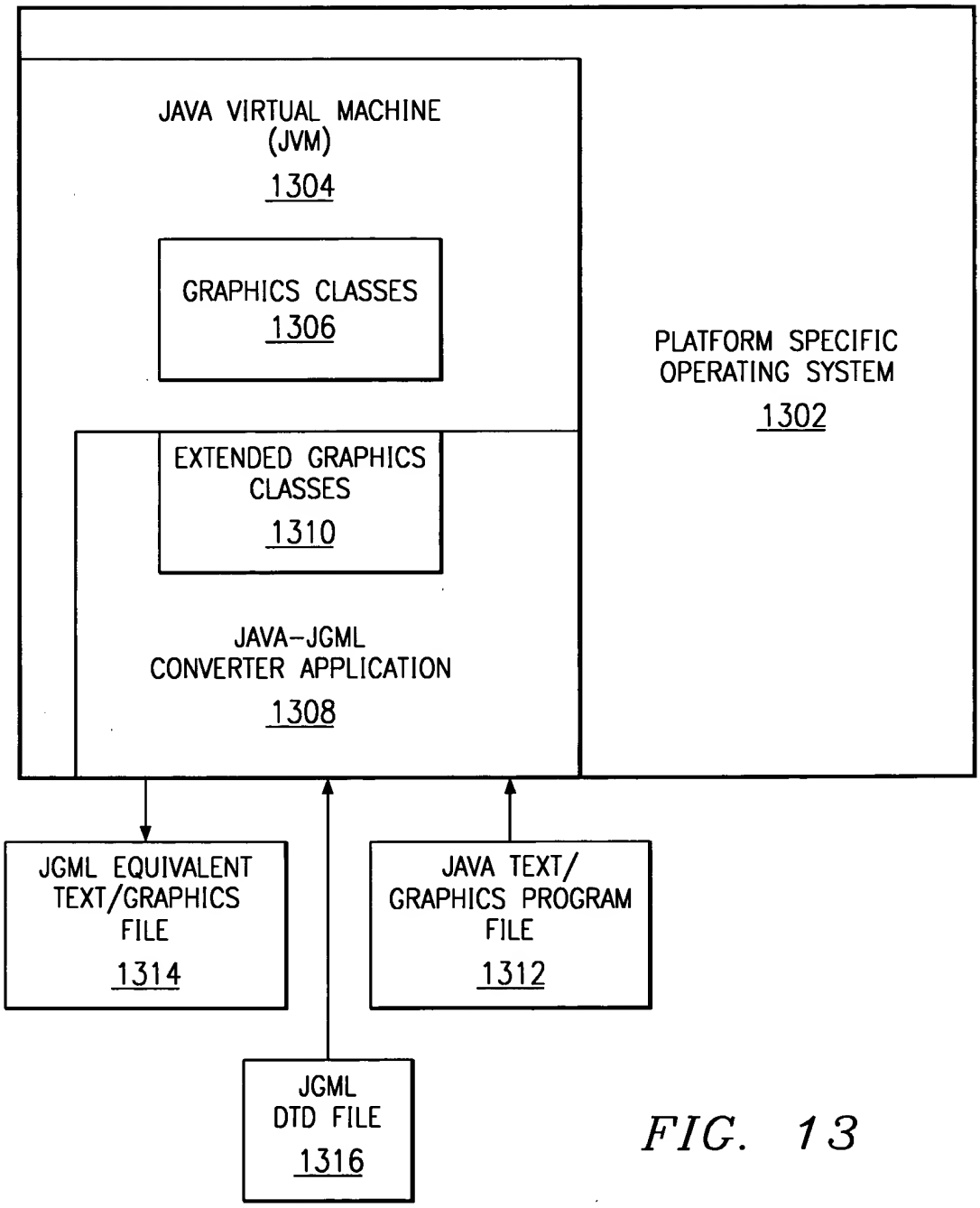


FIG. 13

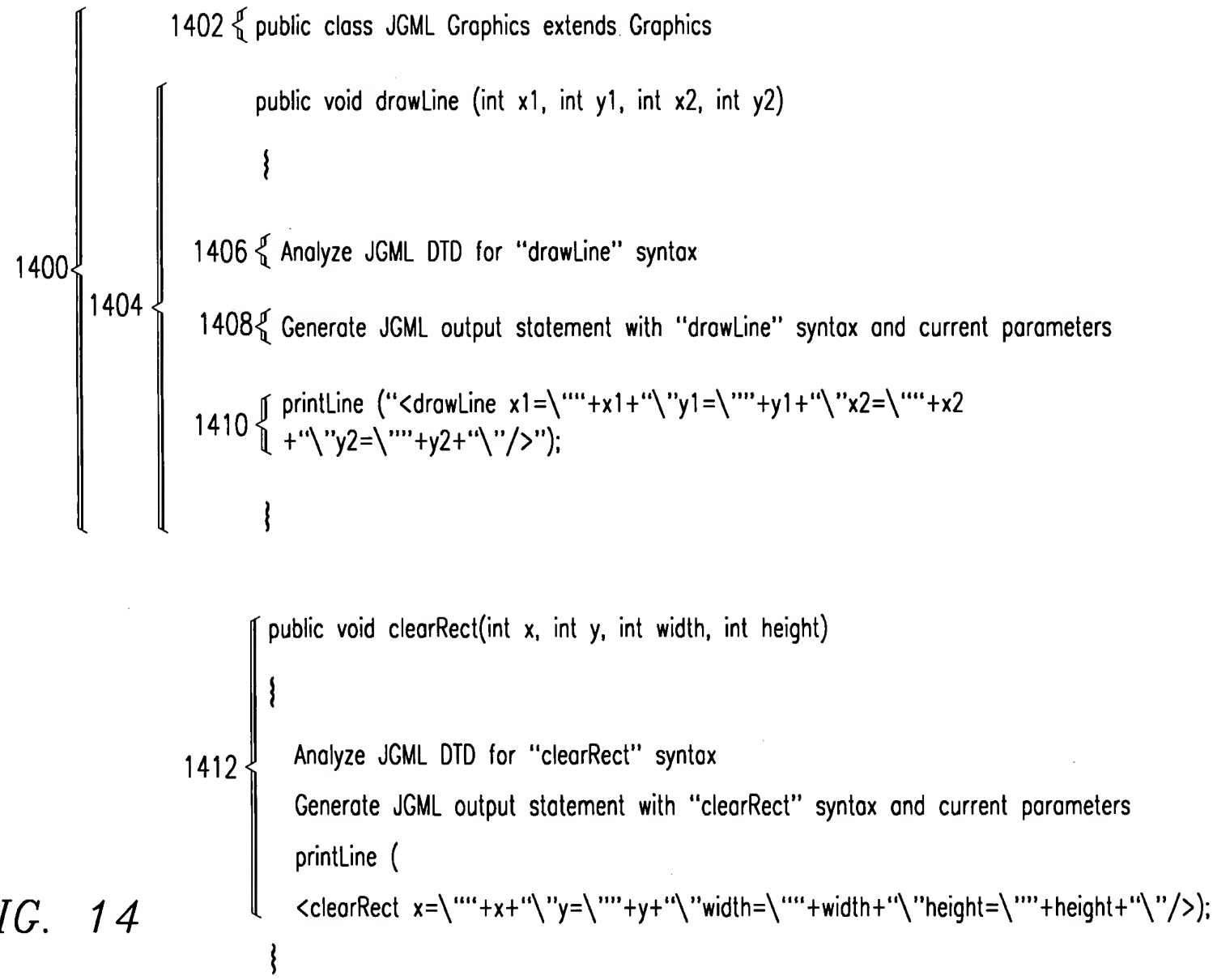


FIG. 14

APPROVED BY DRAFTSMAN
O.G. FIG. CLASS SUBCLASS

APPROVED BY DRAFTSMAN | O.G. FIG. | CLASS | SUBCLASS


```
<!-- Java Graphics Markup Language (JGML) Document Type Definition (DTD) -->
<!ENTITY % base_content_model
     '(copyArea | drawLine | fillRect | drawRect | clearRect |
        drawRoundRect | fillRoundRect | draw3Drect | fill3Drect |
        drawOval | fillOval | drawArc | fillArc | drawPolyline |
        drawPolygon | fillPolygon | drawString | drawChars |
        drawBytes | drawImage | dispose | finalize | clipRect |
        setClip | setColor | setPaintMode | translate | setXORMode |
        setFont)*'
>
<!ELEMENT jgml %base_content_model;>
<!ELEMENT copyArea          EMPTY>
<!ATTLIST
     copyArea               x           CDATA       #REQUIRED
                            y           CDATA       #REQUIRED
                            width       CDATA       #REQUIRED
                            height      CDATA       #REQUIRED
                            dx          CDATA       #REQUIRED
                            dy          CDATA       #REQUIRED
>
<!ELEMENT drawLine          EMPTY>
<!ATTLIST
     drawLine               x1          CDATA       #REQUIRED
                            y1          CDATA       #REQUIRED
                            x2          CDATA       #REQUIRED
                            y2          CDATA       #REQUIRED
>
<!ELEMENT fillRect          EMPTY>
<!ATTLIST
     fillRect               x           CDATA       #REQUIRED
                            y           CDATA       #REQUIRED
                            width       CDATA       #REQUIRED
                            height      CDATA       #REQUIRED
>
<!ELEMENT drawRect          EMPTY>
<!ATTLIST
     drawRect               x           CDATA       #REQUIRED
                            y           CDATA       #REQUIRED
                            width       CDATA       #REQUIRED
                            height      CDATA       #REQUIRED
>
<!ELEMENT clearRect         EMPTY>
<!ATTLIST
     clearRect              x           CDATA       #REQUIRED
                            y           CDATA       #REQUIRED
                            width       CDATA       #REQUIRED
                            height      CDATA       #REQUIRED
>
```

FIG. 15A

APPROVED BY DRAFTSMAN | O.G. FIG. CLASS | SUBCLASS


```
<!ELEMENT drawRoundRect      EMPTY>
<!ATTLIST
    drawRoundRect            x           CDATA    #REQUIRED
                             y           CDATA    #REQUIRED
                             width       CDATA    #REQUIRED
                             height      CDATA    #REQUIRED
                             arcWidth    CDATA    #REQUIRED
                             arcHeight   CDATA    #REQUIRED
>
<!ELEMENT fillRoundRect      EMPTY>
<!ATTLIST
    fillRoundRect            x           CDATA    #REQUIRED
                             y           CDATA    #REQUIRED
                             width       CDATA    #REQUIRED
                             height      CDATA    #REQUIRED
                             arcWidth    CDATA    #REQUIRED
                             arcHeight   CDATA    #REQUIRED
>
<!ELEMENT draw3DRect         EMPTY>
<!ATTLIST
    draw3dRect               x           CDATA    #REQUIRED
                             y           CDATA    #REQUIRED
                             width       CDATA    #REQUIRED
                             height      CDATA    #REQUIRED
                             raised      CDATA    #REQUIRED
>
<!ELEMENT fill3DRect         EMPTY>
<!ATTLIST
    fill3DRect               x           CDATA    #REQUIRED
                             y           CDATA    #REQUIRED
                             width       CDATA    #REQUIRED
                             height      CDATA    #REQUIRED
                             raised      CDATA    #REQUIRED
>
<!ELEMENT drawOval           EMPTY>
<!ATTLIST
    drawOval                 x           CDATA    #REQUIRED
                             y           CDATA    #REQUIRED
                             width       CDATA    #REQUIRED
                             height      CDATA    #REQUIRED
>
<!ELEMENT fillOval           EMPTY>
<!ATTLIST
    fillOval                 x           CDATA    #REQUIRED
                             y           CDATA    #REQUIRED
                             width       CDATA    #REQUIRED
                             height      CDATA    #REQUIRED
>
```

FIG. 15B

APPROVED BY DRAFTSMAN | O.G. FIG. CLASS | SUBCLASS


```
<!ELEMENT drawArc          EMPTY>
<!ATTLIST
    drawArc                x          CDATA    #REQUIRED
                           y          CDATA    #REQUIRED
                           width      CDATA    #REQUIRED
                           height     CDATA    #REQUIRED
                           startAngle CDATA    #REQUIRED
                           arcAngle   CDATA    #REQUIRED
>
<!ELEMENT fillArc          EMPTY>
<!ATTLIST
    fillArc                x          CDATA    #REQUIRED
                           y          CDATA    #REQUIRED
                           width      CDATA    #REQUIRED
                           height     CDATA    #REQUIRED
                           startAngle CDATA    #REQUIRED
                           arcAngle   CDATA    #REQUIRED
>
<!ELEMENT drawPolyLine     EMPTY>
<!ATTLIST
    drawPolyLine           xPoints    CDATA    #REQUIRED
                           yPoints    CDATA    #REQUIRED
                           nPoints    CDATA    #REQUIRED
>
<!ELEMENT drawPolygon      EMPTY>
<!ATTLIST
    drawPolygon            xPoints    CDATA    #IMPLIED
                           yPoints    CDATA    #IMPLIED
                           nPoints    CDATA    #IMPLIED
                           p          CDATA    #IMPLIED
>
<!ELEMENT fillPolygon      EMPTY>
<!ATTLIST
    fillPolygon            xPoints    CDATA    #IMPLIED
                           yPoints    CDATA    #IMPLIED
                           nPoints    CDATA    #IMPLIED
                           Polygon    CDATA    #IMPLIED
>
<!ELEMENT drawString       EMPTY>
<!ATTLIST
    drawString             str        CDATA    #REQUIRED
                           x          CDATA    #REQUIRED
                           y          CDATA    #REQUIRED
>
```

FIG. 15C

APPROVED BY DRAFTSMAN | O.G. FIG. CLASS | SUBCLASS


```
<!ELEMENT drawChars          EMPTY>
<!ATTLIST
    drawChars                data        CDATA    #REQUIRED
                             offset      CDATA    #REQUIRED
                             length      CDATA    #REQUIRED
                             x           CDATA    #REQUIRED
                             y           CDATA    #REQUIRED
>
<!ELEMENT drawBytes          EMPTY>
<!ATTLIST
    drawBytes                offset      CDATA    #REQUIRED
                             length      CDATA    #REQUIRED
                             x           CDATA    #REQUIRED
                             y           CDATA    #REQUIRED
>
<!ELEMENT drawImage          EMPTY>
<!ATTLIST
    drawImage                img         CDATA    #REQUIRED
                             x           CDATA    #IMPLIED
                             y           CDATA    #IMPLIED
                             width       CDATA    #IMPLIED
                             height      CDATA    #IMPLIED
                             dx1         CDATA    #IMPLIED
                             dy1         CDATA    #IMPLIED
                             dx2         CDATA    #IMPLIED
                             dy2         CDATA    #IMPLIED
                             sx1         CDATA    #IMPLIED
                             sy1         CDATA    #IMPLIED
                             sx2         CDATA    #IMPLIED
                             sy2         CDATA    #IMPLIED
                             bgcolor     CDATA    #IMPLIED
                             observer    CDATA    #REQUIRED
>
<!ELEMENT dispose            EMPTY>
<!ELEMENT finalize           EMPTY>
<!ELEMENT clipRect           EMPTY>
<!ATTLIST
    clipRect                 x           CDATA    #REQUIRED
                             y           CDATA    #REQUIRED
                             width       CDATA    #REQUIRED
                             height      CDATA    #REQUIRED
>
```

FIG. 15D

APPROVED BY DRAFTSMAN | O.G. FIG. CLASS | SUBCLASS


```
<!ELEMENT setClip          EMPTY>
<!ATTLIST
    setClip                x          CDATA      #IMPLIED
                           y          CDATA      #IMPLIED
                           width      CDATA      #IMPLIED
                           height     CDATA      #IMPLIED
                           clip       CDATA      #IMPLIED
>
<!ELEMENT setColor         EMPTY>
<!ATTLIST
    setColor               color      CDATA      #REQUIRED
<!ELEMENT setPaintmode     EMPTY>
<!ELEMENT translate        EMPTY>
<!ATTLIST
    translate              x          CDATA      #REQUIRED
                           y          CDATA      #REQUIRED
>
<!ELEMENT setXORMode       EMPTY>
<!ATTLIST
    setXORMode             c1         CDATA      #REQUIRED
>
<!ELEMENT setFont          EMPTY>
<!ATTLIST
    setFont                font       CDATA      #REQUIRED
>
<!-- End of DTD for Java Graphics Markup Language -->
```

FIG. 15E

APPROVED BY DRAFTSMAN | O.G. FIG. CLASS | SUBCLASS

- clearRect (int, int, int, int) ,
  Clears the specified rectangle by filling it with the background color of the current drawing surface.
- clipRect (int, int, int, int)
  Intersects the current clip with the specified rectangle.
- copyArea (int, int, int, int, int, int)
  Copies an area of the component by a distance specified by dx and dy.
- create ( )
  Creates a new Graphics object that is a copy of this Graphics object.
- create (int, int, int int)
  Creates a new Graphics object based on this Graphics object, but with a new translation and clip area.
- dispose ( )
  Disposes of this graphics context and releases any system resources that it is using.
- draw3Drect (int, int, int, int, boolean)
  Draws a 3-D highlighted outline of the specified rectangle.
- drawArc (int, int, int, int, int, int)
  Draws the outline of a circular or elliptical arc covering the specified rectangle.
- drawBytes (byte[ ], int, int, int, int)
  Draws the text given by the specified byte array, using this graphics context's current font and color.
- drawChars (char[ ], int, int, int, int)
  Draws the text given by the specified character array, using this graphics context's current font and color.
- drawImage (Image, int, int, Color, ImageObserver)
  Draws as much of the specified image as is currently available.
- drawImage (Image, int, int, int, int, Color, ImageObserver)
  Draws as much of the specified image as has already been scaled to fit inside the specified rectangle.
- drawImage (Image, int, int, int, int, ImageObserver)
  Draws as much of the specified image as has already been scaled to fit inside the specified rectangle.
- drawImage (Image, int, int, int, int, int, int, int, int, Color, ImageObserver)
  Draws as much of the specified area of the specified image as is currently available, scaling it on the fly to fit inside the specified area of the destination drawable surface.
- drawimage (Image, int, int, int, int, int, int, int, int, ImageObserver)
  Draws as much of the specified area of the specified image as is currently available, scaling it on the fly to fit inside the specified area of the destination drawable surface.

FIG. 16A

APPROVED BY DRAFTSMAN | O.G. FIG. | CLASS | SUBCLASS

- drawLine (int, int, int, int)
  Draws a line, using the current color, between the points (x1, y1) and (x2, y2) in this graphics context" coordinate system.
- drawOval (int, int, int, int)
  Draws the outline of an oval.
- drawPolygon (int[ ], int[ ], int)
  Draws a closed polygon defined by arrays of x and y coordinates.
- drawPolygon (Polygon)
  Draws the outline of a polygon defined by the specified Polygon object.
- drawPolyline (int[ ], int[ ], int)
  Draws a sequence of connected lines defined by arrays of x and y coordinates.
- drawRect (int, int, int, int)
  Draws the outline of the specified rectangle.
- drawRoundRect (int, int, int, int, int, int)
  Draws an outlined round-cornered rectangle using this graphics context's current color.
- drawString (String, int, int)
  Draws the text given by the specified string, using this graphics context's current font and color.
- fill3Drec (int, int, int, int, boolean)
  Paints a 3-D highlighted rectangle filled with the current color.
- fillArc (int, int, int, int, int, int)
  Fills a circular or elliptical arc covering the specified rectangle.
- fillOval (int, int, int, int)
  Fills an oval bounded by the specified rectangle with the current color.
- fillPolygon (int[ ], int[ ], int)
  Fills a closed polygon defined by arrays of x and y coordinates.
- fillPolygon (Polygon)
  Fills the polygon defined by the specified Polygon object with the graphics context's current color.
- fillRect (int, int, int, int)
  Fills the specified rectangle.
- fillRoundRect (int, int, int, int, int, int)
  Fills the specified rounded corner rectangle with the current color.
- finalize ( )
  Disposes of this graphics context once it is no longer referenced.
- getClip ( )
  Gets the current clipping area.

FIG. 16B

APPROVED BY DRAFTSMAN | O.G. FIG. CLASS | SUBCLASS

- getClipBounds ( )
  Returns the bounding rectangle of the current clipping area.
- getClipRect ( )
  Deprecated.
- getColor ( )
  Gets this graphics context's current color.
- getFont ( )
  Gets the current font.
- getFontMetrics ( )
  Gets the font metrics of the current font.
- getFontMetrics (Font)
  Gets the font metrics for the specified font.
- setClip (int, int, int, int)
  Sets the current clip to the rectangle specified by the given coordinates.
- setClip (Shape)
  Sets the current clipping area to an arbitrary clip shape.
- setColor (Color)
  Sets this graphics context's current
- setFont (Font)
  Sets this graphics context's font to the specified font.
- setPaintMode ( )
  Sets the paint mode of this graphics context to overwrite the destination with this graphics context's current color.
- setXORMode (Color)
  Sets the paint mode of this graphics context to alternate between this graphics context's current color and the new specified color.
- toString ( )
  Returns a String object representing this Graphics object's value.
- translate (int, int)
  Translates the origin of the graphics context to the point (x, y) in the current coordinate system.

FIG. 16C

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```
1700 {
  1702 { <!  ENT drawLine EMPTY>

  1706 {  <! ATTLIST drawLine x1 CDATA #REQUIRED
                              x2 CDATA #REQUIRED
                              y1 CDATA #REQUIRED
                              y2 CDATA #REQUIRED
          >

  1704 { <! ELEMENT clearRect EMPTY>

  1708 {  <! ATTLIST clearRect x CDATA #REQUIRED
                               y CDATA #REQUIRED
                           width CDATA #REQUIRED
                          height CDATA #REQUIRED
          >
}
```

FIG. 17

```
1800 {
  1802 ~ drawLine (23, 43, 50, 60);
  1804 ~ drawLine (50, 60, 27, 80);
  1806 ~ clearRect (0, 0, 10, 10);
}
```

FIG. 18

```
1900 {
        <? xml version="1.0" ?>
        <! DOCTYPE jgml SYSTEM "jgml.dtd" >
        < jgml >
  1902 ~ < drawLine x1="23" y1="43" x2="50" y2="60" />
  1904 ~ < drawLine x1="50" y1="60" x2="27" y2="80" />
  1906 ~ < clearRect x="0" y="0" width="10" height="10" />
        < /jgml >
}
```

FIG. 19